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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/726,313

12/02/2003

Ivan V. Mendenhall

AAI-14304

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7590

07/25/2008

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EXAMINER

FELTON, AILEEN BAKER

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

07/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/726,313	Applicant(s) MENDENHALL ET AL.	
	Examiner Aileen B. Felton	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-29 and 31-38 is/are pending in the application.
- 4a) Of the above claim(s) 19,25 and 27-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18,20-24,26 and 31-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 19, 25 and 27-29 remain withdrawn as Applicant was previously required to elect a single composition for prosecution. The Examiner then went on to state examples of the types of components that were to be elected by use of the commonly known abbreviation, i.e.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 18, 20-24, 26 and 31-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. All of the claims are composition claims, yet recite method of using and making steps which render them indefinite. A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph. *IPXL Holdings v. Amazon.com, Inc.*, 430 F.2d 1377, 1384, 77 USPQ2d 1140, 1145 (Fed. Cir. 2005); *Ex parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990), see also MPEP 2173.05(p)(II).

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 18, 20-24, 26 and 31-38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. All of the claims are composition claims, yet recite method of using and making steps which render them indefinite. See MPEP which states "that the claim is directed to neither a "process" nor a "machine," but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 18, 20-24, and 31-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al(6,340,175) in view of Donaghue et al(4,151,022).

Hughes et al discloses using a porous igniter product within an air bag apparatus. A foaming or blowing agent is introduced into the composition to decrease the density of the composition. Example 1 discloses 24.54 % polymeric binder, 1.86 % foaming agent, 15.5 % metal fuel (aluminum), and 53.92 % oxidizer. Col. 5, lines 30-45 indicate that it is known to use Mg/Al alloys as the metal fuel and potassium nitrate as the oxidizer. Further, col. 4, lines 10-47, reference the use of chemical foaming (blowing) agents to form the porous igniter.

Donaghue et al teaches numerous methods for creating porous explosive compositions. One method combines polystyrene particles with the explosive component and heats in the presence of a blowing agent which decomposes such as azodicarbonimide.

Regarding claim 24, Taylor et al discloses the use of hydroxypropyl cellulose with an ignition enhanced air bag composition (col. 3, lines 27-35).

Regarding claim 31, Taylor et al discloses an igniter composition that is coated onto an air bag composition (abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use chemical blowing agents that decompose with heat since Donaghue teaches that it is known to create porous explosives using such agents and since Hughes discloses that it is possible to use chemical blowing agents to form the porous igniters. It is obvious to use the binder as taught by Taylor with the composition of Hughes since Taylor suggests that it can be used with an ignition enhanced air bag composition and since Hughes discloses using various polymeric binders with an ignition composition for use in an air bag device. It also would have been obvious to use the ignition composition of Hughes to coat air bag compositions since Taylor suggests that it is known to use ignition compositions to coat air bag compositions to reduce ignition delay and since the ignition composition of Hughes is used with an air bag device.

The claims also recite that the composition “adheres” and “forms” which are method limitations. Language that suggests or makes optional but does not require

steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. These clauses are essentially method limitations or statements of intended or desired use and do not serve to patentably distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ 641; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 512 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

7. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes et al(6,340,175) in view of Donaghue et al(4,151,022) as applied to claims 18 and 20-23 above, and further in view of Nairn et al (3,293,108).

Nairn teaches the use of aminoguanidine bicarbonate as a blowing agent for a polymeric foam material.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the blowing agent taught by Nairn as the blowing agent in Hughes and Donaghue's composition since Nairn suggests that it is a known blowing agent for making porous polymeric foam materials and since Hughes and Donaghue use chemical blowing agents to make polymeric materials porous.

Response to Arguments

8. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen B. Felton whose telephone number is 571.272.6875. The examiner can normally be reached on Monday-Friday 6:30-4:00, except alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571.272.1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aileen Felton/
Primary Examiner
Art Unit 1793